



The History Of Writing

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Every continent in the world, with the exception of Antarctica, hosts examples of the oldest form of prehistoric art. This art form consists of small hemispherical holes, known as cupules, which have been crushed into rock surfaces and dates from the Lower Palaeolithic era between 300,000 and 1 million BC. Their purpose has baffled anthropologists and archaeologists for centuries but what is clear from their discovery is that our very earliest human ancestors saw a purpose and need for self-expression in much the same way as our modern societies find themselves absorbed by daily Tweets and Facebook updates.

Examples of these prehistoric works of art include:

In Asia: a group of petroglyphs (rock carvings) featuring cupules and an engraving found in the 1990s in Bhimbetka, central India within a quartzite rock shelter or auditorium cave. The art work is at least 290,000 years old but could be up to 700,000 years old.

In North Africa: A quartzite figurine known as The Venus of Tan-Tan was found in Morocco. It has been dated between 200,000 and 500,000 BC. North Africa is of particular importance as it was the route of the first exit point for humans into the Middle East region and on to the rest of the world.

In Africa: The oldest rock carvings in Africa were discovered in the Blombos Caves on the Cape coast of South Africa and date from 70,000 BC.

In Europe: A series of cupules were discovered on the underside of a slab of limestone covering the grave of a Neanderthal child in a rock shelter located at La Ferrassie, in the Dordogne Valley, France. These have been dated between 70,000 and 50,000 BC.

The Great Leap Forward From Self-Expression to Symbolic Art and Language

Scientists have observed that at some point during the period between 75,000 BC and 45,000BC, human evolution made huge progress for unknown reasons. It is during this Great Leap Forward or Brain's Big Bang as some scientists describe it, that humans truly earned the name homo sapiens, Latin for 'wise man'. This period saw the emergence of symbolic art, religious rituals such as burial ceremonies, organisation of living quarters and wider travel and trade bartering.

It has been suggested by Vilayanur Ramachandran of the University of California at San Diego that these leaps in progress could be down to the evolution of mirror neurons which allow us to observe what another person does, learn from watching and then replicate the action ourselves:

"The only reason, says Ramachandran, that these cultural advances 'stuck' in the minds and memories of the population was because we had the capability to imitate and understand the actions of others, in the same way that a language can only become lodged in the minds of a population if the bulk of the population has the ability to learn quickly and easily."ⁱ

This theory is supported by David Crystal, a renowned linguistics expert, who suggests that humans developed the physical attributes required for speech at approximately 35,000 BC. Before this time, the shape of the mouth and throat would have prevented more than a few consonant sounds to be made.^{II} Whilst it is impossible to know when the first language came into existence, the anatomical capability to produce speech has to be a seminal point of progress for the human species even if it were to be another 30,000 years before the first written language was invented.

From this point and throughout the world, a wealth of symbolic art was created;

In Europe: A mammoth ivory carving known as the Venus of Hohle Fels was found in Germany and dates from 40,000-35,000 BC. Additionally, the first cave paintings in Europe found in Chauvret, France are dated from 30,000 BC

In Australia: A charcoal drawn fragment of rock art was discovered in a large rock shelter site known as Narwala Gabarnmang in the Northern Territory in 2011. The dating of this rock art makes it the oldest example in Australia as it is estimated to be from 28,000 BC



In Americas: Just 5 or 6 years ago an etched mammoth bone was discovered on Vero Beach, Florida which has been verified as the oldest art work of the Americas



dating from 11,000 BC. In South America, the famous Cuevas de la Manos or 'caves of the hands' in Argentina date from 9,500 BC.

There seem to be a variety of purposes to these early examples of symbolic art. For example, the genre of cave painting served to:

Entertain the community- Cave painting stories seem often to be located in the part of the cave with the best acoustics, suggesting an early form of theatre.

Record daily events – Scenes of hunting and the gathering of crops as well as the changing seasons are all common images found in cave paintings.



Express feelings and emotions – An image of a mother and child both of whom who are believed to have died during childbirth found in a cave painting in Kimberley, North West Australia suggests that our human ancestors felt it important to acknowledge those life moments that draw out the strongest of emotions from within, regardless of the time in which we live.

In the middle of this period of incredible expansion of humanity both in geographical and social terms, a vast Ice Age decimated the human population particularly in North Europe, Asia and North America where only a small number of communities survived. It would be a further 11,000 years before the reoccupation of these areas. The significance of these events to the importance of art and communication cannot be underestimated. Despite the annihilation of whole populations, symbolic art re-emerges after the Ice Age as an important form of expression for the community.

The key question when considering these examples of pre-historic art must be; how did this ability to create symbolic art appear in such diverse locations? There are two possibilities:

Cultural Diffusion – it is known that humans began travelling to other continents from Africa as early as 115,000 BC. It has been suggested that these creative skills were brought to other communities with these early travelling groups.

Innate Creativity – The alternative theory is that the ability to think and create symbolically evolved in humans during the same time period independently. This theory would also seem more likely when it is considered that despite the devastating effects of the last ice age on human population, symbolic art in many varied forms survived and re-emerged some millennia later.

The Movement from Art to Words

Whilst it is impossible to know the exact date when prehistoric man first lifted a pen (or an ancient forerunner) to record his thoughts in writing, it is possible to determine the evolution of symbolic pictures into a writing system. William Anton Smith suggested that a true form of writing emerges through a process of developmental stages:

1. Picture Writing System

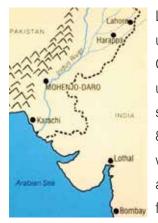
To begin with carved symbols or characters (known as glyphs) are used initially as a reminder of the parts of the story before evolving into pictographs that directly represent objects, ideas or situations within the story.

2. Transitional System

The next stage would see the glyphs not only representing the objects of the story but the names of the objects as well.

3. Phonetic System

Finally, the glyphs focus on representing the sounds or spoken symbols regardless of their meaning. This would firstly result in a glyph that represents a whole word, before the word being broken down into syllables and lastly single sounds.ⁱⁱⁱ



Long before the recording of written language, traders used a written system similar to tallying to record numbers. Georges Ifrah suggests that such a system has been in use for 40,000 years ^{iv}. Evidence of such a system can be seen in clay tokens found in the Mediterranean dating from 8000 BC. These were used as accounting device and were commonplace by 4000 BC. Further examples have also been found in India at Harappa-Mohenjodaro dating from 3300 – 2000 BC. These specimens were clay seals

that would have been used to secure bundles of produce and marked with numbers, perhaps as a predecessor to the price tag.

Prehistoric becomes history

Written language is considered to be so vitally important that historians consider the term 'prehistoric' to apply to those cultures without an established writing system. This is logical when history relies so heavily on written records to understand the past. The point at which the first writing system came into existence is in dispute. In reality it is likely that written language evolved over a long period of time and certainly in more than one independent culture.

It is widely accepted that the first writing system was developed by the Sumerians in approximately 3400-3200BC. It is known as cuneiform and was still in use until 75 AD. The Sumerian people lived in what is now southern Iraq in a very fertile land which was farmed very successfully. They were also very enthusiastic traders and book keepers and it is possible that their interest in record keeping led to the development of the cuneiform script beyond the use of symbolic pictures. The word cuneiform means 'wedge-shaped' and relates to the shape of the letters that were carved into clay tablets using a reed as a stylus in place of a pen.

Shortly after the development of cuneiform, hieroglyphics emerged as a writing system in Egypt dating from approximately 3100 BC. These were still used up until the 5th century AD and whilst they were originally thought to only have a religious or cultural purpose, it is suggested that they were also important for trading and business.^v

What is clear is that both the Sumerians and Egyptians believed that writing was a divine creation. For the Sumerians, it was believed that the god Enlil was the creator of writing as well as being the god of breath and the one who was responsible for the growth of crops. Egyptians believed that the god known as Thoth was responsible for the invention of writing. In addition, he was the historian and scribe for the gods and some believed he also created speech. This could be the reason for the ancient Egyptian belief that immortality



could only be achieved if a person's name was spoken or permanently inscribed somewhere; hence the elaborately decorated tombs seen at the famous pyramids amongst other sites.

In South Asia the first written language system was known as Indus script and dates from 2600-1900 BC. A discovery of more than 2000 clay seals seventy years ago confirmed Indus as the first written language from this geographical region although little progress has been made to decipher its meaning. Scholars have struggled to interpret the seals as it is believed that they are unrelated to any other language group and additionally each seal contains only a few 'letters' making it difficult to reveal its purpose. This example does however add further weight to the theory that written languages were created independently by disparate cultures.

It was believed by scholars that the earliest cultures of the Americas, who established civilisations during the 3rd millennium BC stretching from the Peruvian coast and into the Andes, did not develop a written language system. This puzzled archaeologists who observed that the Incas and other Andean cultures had very advanced societies in terms of political systems and technology. It is only in the last twenty years that a 17th century document, written by Jesuit missionaries, revealed a unique 'writing' system very different from traditional pen and paper. The Incas used a complex arrangement of knots on lengths of cord as a system for counting and record keeping for traders. This was known as a quipu and existed from 2600 BC until the 16th century AD. The document discovered in 1996 established that the quipu system was also used to spell out syllables as well as numbers and the mystery of the lack of 'writing' systems in early Andean culture was solved. In West Asia, the Chinese writing system was developed around 1200 BC. Tortoise shells have been discovered that are inscribed with 'oracle bone' script were dated from the Shang Dynasty (between 1600 and 1000 BC). It is highly likely that the Chinese writing system was not one created as a result of cultural diffusion for two reasons;

1. There is no evidence to suggest that there was any connection between the civilisations that already had writing systems (such as the Sumerians and Egyptians) and the Chinese civilisations.

2. Additionally, the writing systems have very little features in common with both using different methods for representing words and sounds.

The Chinese believed that as writing was invented at a time of great mythology, it had divine purposes to communicate between heaven and earth. This can be seen in the practice of burning the tortoise shells containing oracle bone script as a method of divining the future.

The first writing system in Europe was developed in Crete at around 1900 BC. The system is known as Cretan Hieroglyphs and its origins are unclear although its use amongst the Minoan culture is well documented. Cretan Hieroglyphs eventually led to the development of the Cypriot writing system that used individual written symbols for each letter. Historians have struggled to decipher examples of Cretan Hieroglyphs for similar reasons to those in the case of Indus Script. The clay seals contain only a few symbols and these are incompatible with any known spoken language from the time or geographical region.

All of these early writing systems relied on the use of symbols and pictographs to communicate words and ideas to the reader. The development of the first pure alphabets that use a single symbol to represent a single phoneme (letter sound) began in Egypt in 1800 BC and in time the Phoenician alphabet emerged in approximately 1200 BC. This alphabet, developed along the coastline of modern Lebanon, consisted of 22 consonant letters and did not record vowel sounds. This

practice is still seen in the Arabic and Hebrew written languages today.

	The significance of the Phoenician alphabet
R ′ Ś. Š.	cannot be underestimated. Writing systems that
Th	subsequently developed in Europe, Western Asia
	and Africa have their roots in the Phoenician
	alphabet as do many of the modern scripts used
	in Europe. The Greek alphabet was developed in



900 BC and was one of the first to be written from left to right. The most famous descendent of the Greek alphabet, namely Latin (700 BC) spread quickly throughout Europe with the expansion of the Roman Empire.

The English language was first written in runes which also developed out of Latin. A runic system known as Futharc has been discovered in inscriptions from Anglo Saxon England dating from 200 AD. Written English did not become common however until it was brought to Britain with Christianity in the 6th century AD. This was during the period known as the Dark Ages (between 400 and 1000AD) due to the lack of historical records and the dwindling of urban life and it is generally agreed that human knowledge appeared to regress in Europe during this time. The growth and expansion of Islam from the 7th century onwards however, led to an increase in Arabic as the language of scholars not just in the Middle East, but as far west as Spain where cities like Cordoba became very important for intellectual debate and writing between both the western Christian and Islamic cultures. By the start of the Renaissance period, a new found vigour for written languages developed heralding a revival for both Greek and Latin.

Why write when you can speak?

Whilst it is clear that many early examples of writing systems existed to assist traders in record keeping and bartering with others, the drive behind writing seems to have had a far more important and permanent purpose. Just as the Sumerians and Egyptians believed that writing was a divine creation, the subject matter of early writing reflected the important myths of the culture. The first book to be written, entitled 'The Epic of Galamesh' told a mythical account of a Sumerian ruler between 2700 BC and 2500 BC. It is clear that its author(s) considered the tale important enough to record it for future generations and this must be the true legacy of writing; an opportunity to ensure that important myths and indeed truths survive beyond death.

The invention of writing systems had a profound effect on teaching methods which previously relied upon the wisest in the community imparting his knowledge and understanding to others. This informal teaching could take place anywhere, relying solely on oral history. There are no records of formal education taking place before the invention of writing systems, but evidence suggests that within 1000 years, schools existed in both China and Sumer where Cuneiform Mathematics text books (from around 2000 BC)have been discovered ^{vi}.

It was the Greeks who were known for their enthusiasm in education with formal schooling for boys aged 8 to 16 during the Age of Pericles (455-431 BC). Students were instructed in a range of subjects as well as receiving a moral education. This

was during the time of Socrates whose teaching methods still heavily influence modern classroom practices. The greatest irony seems that no writings by Socrates himself have ever been found. This is evidence that the oral tradition does work if the subject matter is of significant enough importance to others.

Socrates' most famous student Plato expressed Socrates' concern about writing in his work, Phaedrus. Socrates' views seem resonant of those who shudder at the thought of students today relying solely on Wikipedia rather than their local library when researching a school project;

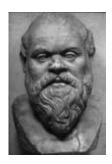
"If men learn this (writing), it will implant forgetfulness in their souls; they will cease to exercise memory because they rely on that which is written, calling things to remembrance no longer from within themselves, but by means of external marks."

He continues to speak about the effects of books on students;

"..by telling them of many things without teaching them.. (students) seem to know much, while for the most part they know nothing, and as men filled, not with wisdom, but with the conceit of wisdom, they will be a burden to their fellows. "

His views of those who choose to write are equally damning;

".. anyone who leaves behind him a written manual, and likewise anyone who takes it over from him, on the supposition that such writing will provide something reliable and permanent, must be exceedingly simple-minded." ^{vii}



It seems that Socrates favoured learning through experience and feared that students would absorb written words without developing a deeper understanding of their meaning or importance. This is certainly a fear held by teachers today as young people try and learn how to use the vast amount of information available on the internet with discernment.

Perhaps comfort should be drawn from the anxieties that Socrates also had about the youth of 5th century BC; it seems that the young always bear the brunt of criticism from an older generation who believe that they know what is best;

"Our youth now love luxury. They have bad manners, contempt for authority; they show disrespect for their elders and love chatter in place of exercise; they no longer rise when elders enter the room; they contradict their parents, chatter before company; gobble up their food and tyrannize their teachers." viii

As well as changing the style of teaching, written materials also changed the loca-

tion of education. Written materials could not easily be replicated and so were kept privately by their author or in collections. Shortly after the invention of cuneiform script in 3000 BC, the first private library was established in Mesopotamia where a collection of 30,000 clay tablets from the time has been discovered. By 300 BC, the first public library in Alexandria was created and although the literate population would have been small, those who were in a position to learn from these texts were able to gather together to do so.

It was only a matter of time before education which centred around the study of texts became formalised with the establishment of the first universities. The world's oldest university was started by a woman at a mosque in Fez, Morocco. Known as the University of Al-Karaouine, it was founded in 859 AD. Religion also played its part in the development of the western universities with the establishment of the University of Bologna in 1088 and eight years later, the University of Oxford.

The origin of the Latin alphabet used by these early European scholars has its roots in the Greek alphabet from the 8th century BC. The alphabet originally contained 21 letters:

ABCDEFZHIKLMNOPQRSTVX

By 250 BC the letter Z was replaced by G as there was no need for the sound in the Latin language at the time. As time progressed however, more Greek words became adopted into the Latin language and it was necessary to include Y and Z at the end of the alphabet. This meant an alphabet of 23 letters by the time of the 1st century AD:

ABCDEFGHIKLMNOPQRSTVXYZ

Between the 5th and 15th centuries, the three final letters were added to the alphabet. These additions (J, U and W) enabled the inclusion of words from cultures new to the Latin language such as the Anglo-Saxons.^{ix}

The appearance of the Latin alphabet has also experienced many transformations since its inception. Most of these changes have been dictated by the writing implements and surfaces available at the time. To begin with, only upper case letters were formed and these made use of straight lines only. As writing implements evolved and improved, so too did the Latin alphabet and its appearance. By 600 AD, lower case letters began to be used. At this time however, letters were still printed in a singular form and it was only with the widespread use of both paper and quill pen together that cursive script or italic style fonts became popular.



What has writing done for us?

Barbara W. Tuchman, a prolific writer of historical novels, summed up the contribution of writing to humankind succinctly;

"Books are the carriers of civilization. Without books, history is silent, literature dumb, science crippled, thought and speculation at a standstill. Without books, the development of civilization would have been impossible. They are engines of change (as the poet said), windows on the world and lighthouses erected in the sea of time. They are companions, teachers, magicians, bankers of the treasures of the mind. Books are humanity in print."^x

It is true to say that historians have favoured the notion that a culture becomes 'civilised' at the point of which it develops a written history and the term 'prehistoric' has traditionally been used to describe the period of history prior to any written records.^{xi} There are however, cultures that still exist in the world today that are without any writing systems and it could be said that they hold the key to understanding the contribution that the written word has made to the world.

Professor Deng Qiyao of Zhongshan University in Guangzhou, China has explored some of these communities in Southern China to establish how their heritage and culture is maintained and shared without written records. What is clear from his findings is that even though these communities do not have any written accounts of their past, history is still of fundamental importance to them. Their heritage is passed on through the oral tradition but also in complex social traditions and rituals including the wearing of garments that carry symbols representing the most important events in their collective history;

"Many ethnic minorities without a written language have a special narrative tradition. They use oral history, mythology.....visual arts and crafts to transmit and pass on their culture. They write with thread."xii

It is clear that the people whom Deng Qiyao writes about share a greater passion for their cultural identity in part because of their responsibility to keep it alive for their descendants. They are aware of their role in living history and their fervour is reminiscent of Socrates' concern that to rely on written words "will implant forgetfulness insouls"^{xiii}

Whilst the findings of Professor Deng Qiyao are enlightening, it would be foolish to ignore the tremendous progress and achievements that have been possible for humanity as a result of the invention of writing systems. Socrates may have disliked the concept of writing but his objections make the notion of education for all people impossible. Without the written word, we would be limited to learning only that which our immediate family and friends know and have experienced. Without the written word, we rely on our descendants to keep alive our own personal experiences in addition to national historical events. It seems that the notion of keeping written records 'for posterity' enables us to feel as though our brief encounter with the human story leaves a mark akin to the scribbles etched by tourists at the Coliseum or the Statue of Liberty; we want it to be known that we were here.

The impetus behind the first clay tablets that recorded quantities for traders in 8th century BC was a desire to make business transactions more successful and diverse; industry and commerce has to be one of the areas that would be severely limited without written communication. From simple accountancy practices to trade agreements with different countries, writing has transformed business from the simple bartering practices of prehistoric times.



From the invention of the printing press by Johannes Gutenberg in 1450 onwards, the evolution of writing systems and writing implements has brought immense change to the manner of communication for both businesses and individuals. The invention of the typewriter in 1867 altered the relationship between the writer and the written word dramatically. Not only was it now possible for a person to create a uniform page of text, but with the invention of modern shorthand writing systems (such as

Pitman and Gregg) it was also possible to outsource your written communication to others capable of typing your words more efficiently.

Shorthand continued to be a very popular means of written communication within business until the invention of the portable dictation devices which became popular in the 1960s and 70s. Whilst it might seem that shorthand has no place in the digital age we currently live in, it is interesting to note that it is still seen as requirement for modern journalists;

"Strangely, it's more necessary than ever," says Kim Fletcher, chairman of the National Council for the Training of Journalists. "If you have a shorthand note you can find the quote very quickly. You go in with a tape recorder, or a digital recorder, and if you've spent an hour in there with your recorder you've got an hour of tape to go through, that takes quite a long time."xiv

There are those who suggest that we are moving into a post-literate society where the handwritten word will be defunct. Whilst it may be true that more than 173,000 emails are sent every second and sales of e-books have overtaken printed books^{xv} the fact remains that we will always need pens and pencils.

Whilst it might seem that the world has been seduced by the 14.8 billion pages on the internet and that everyone thrives on a daily diet of emails, text messages, tweets and posts, the reality is that only the lowly pen or pencil allows written communication without a power source. Whilst this might seem merely a romantic notion, sales figures support the idea that the handwritten word is more popular than ever. Whereas the combined worldwide projected sales figures for personal computers, tablets and smartphones for 2012 was a meagre 1.162 billion;^{xvi} annual global sales for the pencil reached 16 billion pieces last year, an increase of 7% on the previous year.^{xvii} With each pencil capable of 35 miles of writing which equates to approximately 45,000 words, or 300 average sized emails, it seems those simple pencils of 2012 could write the world's emails for ten months, although with an estimated 17% of emails received as spam perhaps they could last all year.^{xviii} The use of pens and pencils is far from a dying art as Count Anton Wolfgang von Faber-Castell, owner and director of Faber- Castell explained in a recent interview for the Telegraph;

" 'As a man, there are not too many accessories. You can have cuff links, and I love cuff links..... you used to wear tie clips, but no one seems to do that anymore, and you can wear a watch. And when it comes to status, there is the pen and pencil.'

But who, in the era of the iPad, actually uses a pencil, apart from schoolchildren and people working in the British Library?

'Creative people, not just artists, fashion designers, particularly architects. Norman Foster is a pencil freak.' He adds that everyone told him the company would go down the tubes when the internet took off. 'You felt like a fool manufacturing an old fashioned product like ours but we did pretty well with them. And if you look at some of the dotcom companies they are gone.' "xix

ⁱ Robert Winston, Human Instinct, 2002, p292
ⁱⁱ David Crystal, How Language Works, 2005, p354f.
ⁱⁱⁱ William Anton Smith, The Reading Process, 1922
^{iv} Georges Ifrah, The History of Numbers, 2000, p64-67
^v Taken from http://www.ancientscripts.com/egyptian.html
^{vi} Cited on History of Education Timeline from http://edhistory.com/
^{vii} Plato quotes Socrates, Phaedrus taken from
http://faculty.berea.edu/pearcej/gstr110/wk/Socrates-on-Technology.pdf
vili Attributed to Socrates, believed to be reported by Plato.
^{ix} Summary adapted from:
http://www.orbilat.com/Languages/Latin/Grammar/Latin-Alphabet.html
^x Taken from
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$^{ m xi}$ Deng Qiyao, The Other Writing of People without a Written Language , 2009, available at
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$^{ m xii}$ Deng Qiyao, The Other Writing of People without a Written Language , 2009, available at
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^{xiii} Plato quotes Socrates, Phaedrus taken from
http://faculty.berea.edu/pearcej/gstr110/wk/Socrates-on-Technology.pdf
xiv Taken from http://news.bbc.co.uk/today/hi/today/newsid_8356000/8356176.stm
^{xv} Statistic taken from
http://www.guardian.co.uk/books/2012/aug/06/amazon-kindle-ebook-sales-overtake-print
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^{xviii} Statistic on spam email taken from
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mail-Statistics-Report-2011-2015-Executive-Summary.pdf
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sumer/9368695/Pencils-are-status-symbols-for-men-says-Faber-Castell.html

